

Arctic Construction and Maintenance Challenges on the North Slope

Building and maintaining outside plant in the Arctic presents many challenges that are found nowhere else in the America. It is hard to imagine a fair comparison to similarly situated companies outside the few that border ASTAC on its southern boundary. Our lack of roads, extreme cold, blizzards, widely dispersed insular communities and a very short construction season all drive up the cost to bring telecommunications services to the Inupiat people of the North Slope.

- The lack of roads¹ means everything from personnel to equipment has to be flown or delivered by air cargo. As you can see by the following schedules, flights from our hubs in Barrow and Deadhorse are protracted, with limited opportunity to come and go. There are no direct flights from Deadhorse to Anaktuvuk Pass. Our choices are to either charter for ~\$3000 per trip or fly to Fairbanks, overnight and switch carriers to get into Anaktuvuk Pass. The return path is similar and there is little difference in cost when you consider hotel, per diem and non-productive labor during travel.

The screenshot shows the Era Alaska website in a Windows Internet Explorer browser. The page displays flight schedules for the Barrow - Point Hope route. The search criteria are set to Round Trip, Departure: Barrow, US (BRW), Arrival: Point Hope, US (PHC), Departure Date: 08/02/2012, and Return Date: 08/02/2012. The search results show two flights: Barrow - Point Hope and Point Hope - Barrow, both operated by Hageland Aviation, with a duration of 01hr 45 min and 01hr 30 min respectively.

Route	Departs	Arrives	Flight Info	Operated By	Stops	Duration	Mo	Tu	We	Th	Fr	Sa	Su	Details
Barrow - Point Hope - the week including Thursday, August 2, 2012	9:30AM	11:15AM	7H 3362*	Hageland Aviation	1	01hr 45 min								
Point Hope - Barrow - the week including Thursday, August 2, 2012	11:45AM	1:15PM	7H 3363*	Hageland Aviation	1	01hr 30 min								

Providing service to Point Hope from Barrow involves an hour and forty five minute plane ride, one way, with twice weekly flights.

¹ Deadhorse is the only exchange that has terrestrial transportation via the Dalton Highway.

Timetables | Era Alaska - Windows Internet Explorer

http://www.flyera.com/timetables

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Timetables | Era Alaska

Round Trip One Way

Departure Prudhoe Bay/Deadhorse, US (SCC) Arrival Fairbanks, US (FAI)

Departure Date 08/02/2012 Return Date 08/02/2012

Show All Flights Weekly Search

Prudhoe Bay/Deadhorse - Fairbanks - the week including Thursday, August 2, 2012

Departs	Arrives	Flight Info	Operated By	Stops	Duration	Mo 30	Tu 31	We 01	Th 02	Fr 03	Sa 04	Su 05	Details
1:00PM	3:50PM	7H 3502* 7H 3503*	Hageland Aviation Hageland Aviation	2	02hr 50 min	•	•	•	•	•			i
1:50PM	3:25PM	7H 781	Era Aviation	0	01hr 35 min	•	•	•	•	•	•		i

Fairbanks - Prudhoe Bay/Deadhorse - the week including Thursday, August 2, 2012

Departs	Arrives	Flight Info	Operated By	Stops	Duration	Mo 30	Tu 31	We 01	Th 02	Fr 03	Sa 04	Su 05	Details
8:45AM	11:35AM	7H 3500* 7H 3501*	Hageland Aviation Hageland Aviation	2	02hr 50 min	•	•	•	•	•			i
11:00AM	12:35PM	7H 780	Era Aviation	0	01hr 35 min	•	•	•	•	•	•		i

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9:32 AM 8/2/2012

Anaktuvuk Pass Schedules and Fares - Windows Internet Explorer

http://www.wrightair.net/AnaktuvukPass.htm

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Anaktuvuk Pass Schedules and Fares

WRIGHT AIR SERVICE Fairbanks International Airport East Ramp (907) 474-0502

ANAKTUVUK PASS SCHEDULES AND FARES

See Also: [\[Anaktuvuk Pass to Fairbanks\]](#) [\[Anaktuvuk Pass to Bettles\]](#) [\[Anaktuvuk Pass to Coldfoot\]](#) [\[Anaktuvuk Pass to Allakaket\]](#)

Fairbanks To Anaktuvuk Pass

Flight	Depart	Arrive	Frequency	One Way Fare Adult	Round Trip Adult	One Way Fare Child	Round Trip Child	Excess Baggage/LB.
300	8:15 a.m.	9:50 a.m.	M-F	\$180.00	\$360.00	\$140.00	\$280.00	.85
320	1:00 p.m.	2:35 p.m.	M-F	\$180.00	\$360.00	\$140.00	\$280.00	.85
370	10:15 a.m.	12:30 a.m.	Sat.-Sun.	\$180.00	\$360.00	\$140.00	\$280.00	.85

Anaktuvuk Pass to Fairbanks [\[Back To Top\]](#)

Flight	Depart	Arrive	Frequency	One Way Fare Adult	Round Trip Adult	One Way Fare Child	Round Trip Child	Excess Baggage/LB.
301	10:10 a.m.	11:45 a.m.	M-F	\$180.00	\$360.00	\$140.00	\$280.00	.85
321	2:45 p.m.	4:20 p.m.	M-F	\$180.00	\$360.00	\$140.00	\$280.00	.85
371	12:35 p.m.	2:40 p.m.	Sat.-Sun.	\$180.00	\$360.00	\$140.00	\$280.00	.85

Done

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9:33 AM 8/2/2012

There are no direct flights to Anaktuvuk Pass from Barrow unless we charter the entire plane.



Anaktuvuk Pass in July. Summer construction season is 75-90 days.



Construction in the Arctic.

Extreme cold and blizzards hamper operations, making the simplest tasks like getting to work an issue. Extreme cold is our reality and we mitigate cold injuries by investing in the proper clothing, equipment and safety training and standards, but not without some corresponding decrease in work output during inclement periods.



ASTAC technician vehicles at camp the morning after a blizzard (above) and what they found at our central office after digging out at camp (below).



Operating expenses for maintenance of existing facilities are higher than the norm because everything is either flown in or barged over brief summer. As examples, gasoline can exceed \$9 per gallon in some of our exchanges where it is flown in. Electricity is \$.29 per kilowatt hour, almost three times the national average of \$.1029 per kilowatt hour.²



Extreme cold, darkness and stormy weather are our operating realities.

² http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_03

Permafrost exists year round and impedes trenching, requiring extensive replacement of teeth on the Ditch Witch saw just to plow a short section of cable.



“Super Sucker” tankers (at \$345 each per hour) are used to remove material from co-location trenches to protect other utilities’ facilities (e.g. gas and power). An average trenching job may require two tankers for the length of the project. Because of the brief construction period and the cost to mobilize and safeguard the open trench at the end of each shift, technicians generally work twelve or more hours per day.



Cold and darkness are a constant for much of the year.



Even with the coming of spring and the return of the sun, winter's challenges linger.



After months of total darkness, "spring" wind storms can damage facilities and close roads.



Alaska is unique; the North Slope is extreme!